



6100 & 6200 Series

Ball and Poppet Check Valves



Features

- O-ring seat provides leak-tight shutoff
- Internal design guides flow around or inside spring, not through coils, when valve is open
- All models are tested in production to assure a leak-tight body joint and seat
- Ball and poppet designs are available as standard
- Ball type provides effective leak-tight closure with minimum flow resistance
- Poppet models provide large flows with a minimum of chatter and fluctuation
- Valves are available with various cracking pressures, from 1/3 to 25 psig (0 to 2 bar).
- 2-piece body permits interchangeability of end connections
- Special High Tolerance NPT Thread

Applications

- Prevents reversed flow to protect solenoids, regulators, and pumps
- Locks pressure in hydraulic cylinders
- Low pressure inline relief valve
- Vent valve to purge a system

Technical Data

Body Material*	316 stainless steel, brass, Monel®
Maximum Operating Pressure	Brass: 3000 psig @ 70° F (414 bar @ 21° C) Stainless steel, Monel®: 6000 psig @ 70° F (414 bar @ 21° C)
Standard cracking pressure	2 psig
Operating Temperature Range	Buna N: -40° F to +200° F (-40° C to +93° C) Viton®: -20° F to +350° F (-29° C to +177° C)
Orifice Sizes	0.187" (4.75mm), 0.422" (10.7mm)
Cv Factors	0.3, 2.4

* Consult factory for other materials

check valves

HOKE Inc.

PO Box 4866 • Spartanburg, SC 29305-4866
Phone (864) 574-7966 Fax (864) 587-5608
www.hoke.com • Sales-hoke@circor.com

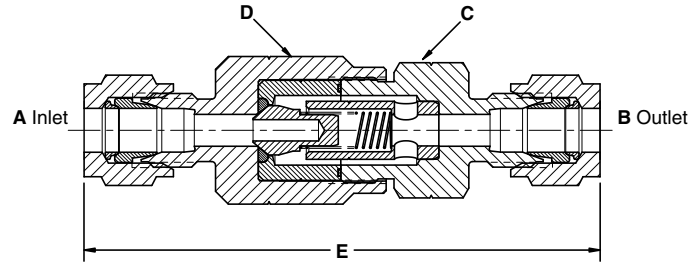
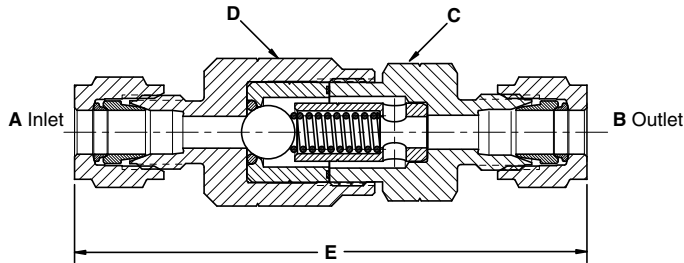
6100 & 6200 Series

Materials of Construction

Part	Ball Type			Poppet Type
	Brass	316 Stainless Steel	Monel®	316 Stainless Steel
Body	Brass	316 stainless steel	Monel®	316 stainless steel
Ball/Poppet	302 stainless steel	316 stainless steel	Monel®	316 stainless steel
Spring	302 stainless steel	316 stainless steel	Monel®	316 stainless steel
O-ring seat	Buna N	Viton®	Viton®	Viton®/Buna N*
Gasket (body)	Mylar®	PTFE	PTFE	PTFE/Buna N*

* For poppet check valves with 3/8" and 1/2" NPT female connections.

Dimensions



6100 Series Ball Check Valves

A & B Connections	C Hex	D Hex	E
1/8" NPT female	inch 1/16	3/4	2 3/8
	mm 17	19	60
1/8" NPT male	inch 1/16	3/4	2 3/8
	mm 17	19	60
1/4" NPT female	inch 3/4	3/4	2 1/2
	mm 19	19	64
1/4" NPT male	inch 1/16	3/4	2 3/8
	mm 17	19	60
1/4" NPT male x 1/4" GYROLOK®	inch 1/16	3/4	2 3/4
	mm 17	19	70
6mm GYROLOK®	inch 1/16	3/4	3
	mm 17	19	76
1/4" GYROLOK®	inch 1/16	3/4	3
	mm 17	19	76
3/8" GYROLOK®	inch 1	3/4	3 1/8
	mm 25	19	79

6200 Series Poppet Check Valves

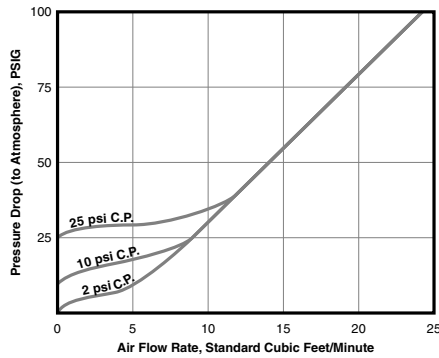
A & B Connections	C Hex	D Hex	E
1/4" NPT female	inch 3/4	3/4	2 1/2
	mm 19	19	64
1/4" NPT male	inch 1/16	3/4	2 3/8
	mm 17	19	60
1/4" GYROLOK®	inch 1/16	3/4	3
	mm 17	19	76
3/8" GYROLOK®	inch 1	3/4	3 3/8
	mm 25	19	79
1/2" GYROLOK®	inch 1 1/4	1 1/4	3 1/2
	mm 32	32	89

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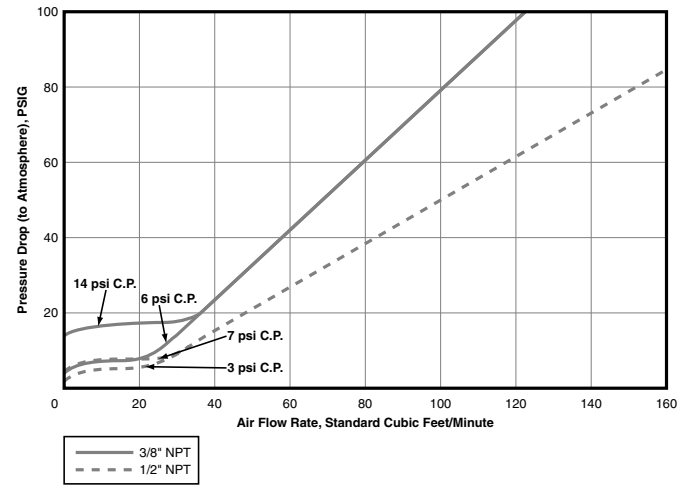
Flow Diagrams

Air

For all models except $\frac{3}{8}$ " and $\frac{1}{2}$ " NPT female

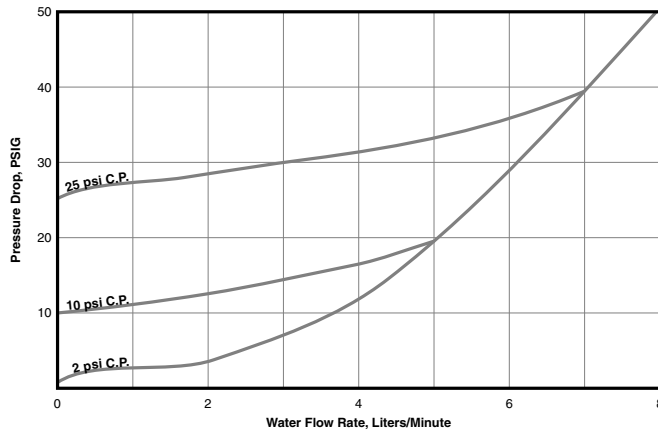


$\frac{3}{8}$ " and $\frac{1}{2}$ " NPT female models

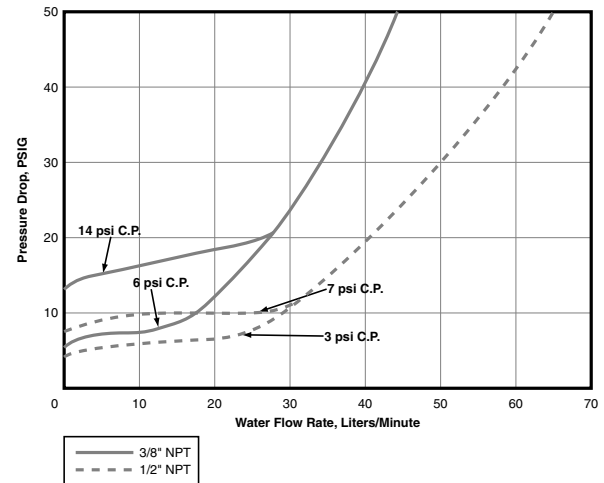


Water

For all models except $\frac{3}{8}$ " and $\frac{1}{2}$ " NPT female



$\frac{3}{8}$ " and $\frac{1}{2}$ " NPT female models



How to Order: Standard Valves (factory preset at cracking pressure of 2 psig)

6100 Series Ball Check Valves

A & B Connections	Part Number			
	Brass	Monel®	316 St. Steel	Orifice
$\frac{1}{8}$ " NPT female	6113F2B	—	6133F2Y	0.187
$\frac{1}{8}$ " NPT male	6113M2B	—	6133M2Y	0.187
$\frac{1}{4}$ " NPT female	6113F4B	—	6133F4Y	0.187
$\frac{1}{4}$ " NPT male	6113M4B	—	6133M4Y	0.187
$\frac{1}{4}$ " GYROLOK®	6113G4B	6133G4M	6133G4Y	0.187
$\frac{3}{8}$ " GYROLOK®	6113G6B	6133G6M	6133G6Y	0.187
$\frac{1}{4}$ " NPT male x $\frac{1}{4}$ " GYROLOK®	6113H4B	—	—	0.187
6mm GYROLOK®	—	—	6133G6YMM	0.187

6200 Series Poppet Check Valves

A & B Connections	Part Number	
	316 St. Steel	Orifice
$\frac{1}{4}$ " NPT female	6233F4Y	0.187
$\frac{1}{4}$ " NPT male	6233M4Y	0.187
$\frac{1}{4}$ " GYROLOK®	6233G4Y	0.187
$\frac{3}{8}$ " GYROLOK®	6233G6Y	0.187
$\frac{1}{2}$ " NPT female	6253F8Y	0.422
$\frac{1}{2}$ " GYROLOK®	6253G8Y	0.422

Other Differential Cracking Pressures

Cracking Pressure	Digit	All check valves except $\frac{3}{8}$ " and $\frac{1}{2}$ " female NPT models can be furnished with other than the standard 2 psig cracking pressure. To order, change the fourth digit ("–3") of the desired valve part number.
$\frac{1}{2}$ psig	–1	Example: 6115G4B is a 6100 Series brass ball check valve with $\frac{1}{4}$ " GYROLOK® ends and a 10 psig cracking pressure
10 psig	–5	
25 psig	–6	

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